

# Montana Laboratory Sentinel



Updates from the MT Laboratory Services Bureau  
800-821-7284 [www.lab.hhs.mt.gov](http://www.lab.hhs.mt.gov)

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Dwain Lowry Explains Newborn Screening Testing to Visiting Students

## State Lab Screens Newborns with Blood Tests

According to the Montana Department of Public Health & Human Services, about 35 babies are born in the Treasure State every day. Shortly after birth, a blood sample is taken for all newborns and shipped to the state lab in Helena. There, the Serology & Newborn Screening Lab, tests for 28 conditions.

Dwain Lowry, clinical lab specialist at the facility, said, "I like it because it gives me a sense of satisfaction. Most of these diseases are life-threatening, and cause major organ damage, brain damage, that type of thing. So in a sense, we are helping to save babies' lives for the ones that are afflicted by a particular disease."

The State Lab reports finding a disease in approximately 1 out of every 735 infants. Lowry says by detecting some of these diseases early, it can prevent mental retardation, serious illness, or even death.

The [Montana PHSD website](http://www.mt.gov/PHSD) offers more information about the newborn testing process, including this overview. Montana screens for:

- Amino acid metabolism disorders (which include PKU - Phenylketonuria), occurring in 1 in 10,000 to less than 1 in 100,000 births.
- Organic acidemia disorders occur in 1 in 50,000 births.
- Fatty acid oxidation disorders occur in 1 in 10,000 births.
- Congenital hypothyroidism occurs in 1 in 3000 births.
- Congenital adrenal hyperplasia occurs in 1 in 12,000 births.
- Cystic fibrosis occurs in 1 in 2500 births of European ancestry.
- Hemoglobin disorders (includes Sickle cell anemia and thalassemia). Sickle cell anemia occurs in about 1 in 400 births to those of African ancestry and 1 in 10,000 Montana births.
- Galactosemia (GALT) occurs in about 1 in 60,000 births.
- Biotinidase deficiency (BIOT) occurs in about 1 in 60,000 births.

The Montana Laboratory Services Bureau Open House was covered by KTVQ in Helena. The news article above was featured in the Association of Public Health Laboratories e-News, Jul 6, 2010.

## Recent detection of seasonal Influenza A (H3N2) virus infections

CDC released a [Health Alert Network Advisory](http://www.cdc.gov/eid/content/alerts/alert_h3n2.htm) on August 3 describing influenza A (H3N2) virus infections that have recently been detected in people in a number of states across the US, including two small localized outbreaks. Sporadic cases of influenza and localized summer outbreaks from seasonal influenza viruses are detected each summer.

Clinicians are reminded to consider influenza as a possible diagnosis when evaluating patients with acute respiratory illnesses, including pneumonia, even during the summer months. Public health laboratories are reminded of the importance of continuing influenza surveillance throughout the summer, and sending isolates and specimens to CDC for further characterization to help assess changes in the viruses that may impact the utility of the new influenza vaccine.

## Model Demonstrates Infectious Cause of Asthma

Scientists from the University of Massachusetts have developed an animal model that shows how an early childhood lung infection can cause asthma later in life. They presented data at the 110th General Meeting of the American Society for Microbiology in San Diego on May 24, 2010.

Asthma is the most common chronic respiratory disease affecting young children all over the world and the number of new pediatric asthma cases has dramatically increased over the last 20 years. Chlamydia infection of the respiratory tract has been identified as a risk factor in asthma development. Using the mouse model, they demonstrated that when mice are infected very early in life with respiratory chlamydia, asthma was induced.

The immune response in the newborns was significantly different from adults and the newborns never cleared the infection, while the adults did. Early life respiratory colonization with chlamydia elicits pathogen-specific IgE antibody production, which for the first time provides evidence of an infectious asthma phenotype.

[http://gm.asm.org/index.php?option=com\\_content&view=article&id=227:odel-demonstrates-infectious-cause-of-asthma&catid=46:newsroom](http://gm.asm.org/index.php?option=com_content&view=article&id=227:odel-demonstrates-infectious-cause-of-asthma&catid=46:newsroom)

**World Health Organization (WHO) Announces end of H1N1 Pandemic on August 10, 2010**

## MT Communicable Disease Update Week 30 Ending 07/31/10

This newsletter is produced by the Montana Communicable Disease Epidemiology Program.

Questions regarding its content should be directed to 406.444.0273 (24/7/365).

<http://cdepi.hhs.mt.gov>

**Summary – MMWR Week 30 - Ending 7/31/10** – Disease reports received at DPHHS during the reporting period July 18th through July 24th, 2010 included the following:

- Vaccine Preventable Diseases: Pertussis (1), *Streptococcus pneumonia* (1)
- Invasive Disease: *Haemophilus influenza* (1)
- Enteric Diseases: Campylobacteriosis (25), Giardiasis (1), *E. coli* O157 (1)
- Other Conditions: Viral meningitis (4)
- Animal Rabies: Bats (3)
- Travel Related Conditions: Malaria (1)

**Viral Meningitis** – During the month of July, the MT DPHHS Communicable Disease Epidemiology program received higher numbers of aseptic and viral meningitis case reports compared to recent years. During the month of July 2010, 9 cases were reported, compared to 2 cases in July, 2009, and four cases total in June and July, 2008. Different viral infections can lead to viral meningitis. Most cases in the United States, particularly during the summer and fall months, are caused by [enteroviruses](#). These include enteroviruses, coxsackieviruses, and echoviruses. Most people who are infected with enteroviruses either have no symptoms or only get a cold, rash, or mouth sores with low-grade fever. A small number of people with enterovirus infections develop meningitis. If you suspect a case of viral or aseptic meningitis please submit CSF specimens to the Montana Public Health Laboratory for enterovirus testing by PCR. All specimens found negative will be further tested by viral culture.

**Hepatitis A** – The Colorado Department of Health is working with Grand County Colorado (Grand Lake) on a hepatitis A exposure investigation involving two restaurants in the Grand Lake Area.

(<http://www.skyhidailynews.com/article/20100809/NEWS/100809904/1079&ParentProfile=1067>)

In MT, two potential exposures have been reported from Missoula and Valley Counties.

Persons who ate at the following establishments during the time frames listed have been advised to receive hepatitis A immunoglobulin / vaccine for prophylaxis:

Sagebrush BBQ & Grill 7/24/10 – 8/3/10

Max & Ts Bar and Grill 7/26/10 – 7/30/10

Prophylaxis Recommendations from the CDC

(<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5641a3.htm>)

**Influenza surveillance** - The Centers for Disease Control and Prevention (CDC) is urging healthcare providers to be on the alert for influenza cases, following the reporting of two small outbreaks of influenza A/H3N2 in Iowa and scattered H3N2 cases in 11 other states. Sporadic cases and localized outbreaks of flu are detected every summer. On the basis of hemagglutinin gene sequencing of four isolates so far, the CDC said, the viruses are expected to be similar to A/Perth/16/2009-like H3N2 viruses, a strain that's included in this year's vaccine. Clinicians should consider influenza as a possible diagnosis in patients with acute respiratory illnesses, including pneumonia and send specimens for PCR testing to the Montana Public Health Laboratory. For more information: [http://www.dphhs.mt.gov/PHSD/ph-informatics/documents/CDCHealthAdvisory00316\\_SeasonalInfluenzaAH3N2.pdf](http://www.dphhs.mt.gov/PHSD/ph-informatics/documents/CDCHealthAdvisory00316_SeasonalInfluenzaAH3N2.pdf)

**ACIP recommendations for influenza vaccination.** The CDC has released the 2010-2011 ACIP recommendations for influenza vaccination. It is recommended that vaccine be given as soon as it becomes available, which will be in a few weeks.

To view a summary of the recommendations visit: <http://www.medscape.com/viewarticle/726213>

To view the ACIP guidelines visit:

[http://www.cdc.gov/mmwr/preview/mmwrhtml/rr59e0729a1.htm?s\\_cid=rr59e0729a1\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr59e0729a1.htm?s_cid=rr59e0729a1_w)